

# Contribution Report

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## ❖ Specific tasks and responsibilities :

- **Interface Development using Streamlit:**

- Built the user interface for the Parking Management System using Streamlit for deployment.

- **Data Integration:**

- Performed data integration methods to ensure seamless data handling and visualization.

## ❖ Code sections written or major contribution to the project

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### **Streamlit Interface for Parking Management System**

Developed a Streamlit application to facilitate user interaction with the Parking Management System. Below are key functionalities and methods employed:

- **Reading and Saving Data:**

- Utilized Pandas for reading and saving vehicle data to/from a CSV file.

- **Cost Calculation:**

- Implemented a method to calculate parking costs based on entry and exit times.
- **User Interface Design:**
  - Designed and structured the Streamlit interface to include:
    - Home page with welcome message and system overview.
    - Video upload page for capturing vehicle entry data.
    - Dataset view page to display stored vehicle records.
    - Slot availability section for real-time parking slot updates.

## ❖ **Any challenges faced and how they were overcome :**

- **File Upload Handling:**
  - Managed the challenge of uploading and displaying videos and images effectively.
- **Data Integration:**
  - Successfully integrated the dynamically saved dataset into the view for parking history.
- **Alignment Issues:**
  - Addressed challenges related to aligning UI components properly across different screen sizes.
  - Preprocessed data for better accuracy.

## ❖ **Collaboration with team members :**

### 1. **Task Division:**

- Divided the project so each member worked on parts aligned with their strengths.

## **2. Regular Communication:**

- Maintained regular updates and communication among team members.

## **2. Idea Sharing:**

- Provided insights and ideas for generating better results.